CLAIMS

1. A polynucleotide obtained from tick salivary gland and presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a sequence complementary thereto, or an active fragment thereof.

2. The polynucleotide of claim 1, which presents at least 80% identity with SEQ.ID.NO.26 nucleotide sequence.

3. The polynucleotide of claim 1, which is at least 90% identical with SEQ.ID.NO.26 nucleotide sequence.

4. The polynucleotide of claim 1, which is at least 95% identical with SEQ.ID.NO.26 nucleotide sequence.

5. The polynucleotide of claim 1, which is at least 98-99% identical with SEQ.ID.NO.26 nucleotide sequence.

6. The polynucleotide of claim 1, which is at least 99% identical with SEQ.ID.NO.26 nucleotide sequence.

7. A polypeptide encoded by the polynucleotide of claim 1, or a biologically active fragment or portion thereof.

8. A polypeptide according to claim 7, modified by or linked to at least one substitution group, preferably selected from the group consisting of amide, acetyl, phosphoryl, and/or glycosyl groups.

9. The polypeptide of claim 7 in the form of a "mature" protein.

10. The polypeptide of claim 7 as part of a larger protein.

11. The polypeptide of claim 7 as part of a fusion protein.

12. The polypeptide of claim 7 further including at least one additional amino acid sequence which contains secretory or leader sequences, pro-sequences, sequences which help in purification such as multiple histidine residues, or additional sequences for stability during recombination protection.

13. A variant of a polynucleotide according to claim 1 or of a polypeptide according to claim 7, or an active fragment of said polypeptide.

14. The variant according to claim 13, which varies from the referent by conservative amino acid substitutions.

15. The variant according to claim 13 in which at least one residue is substituted with another residue of like characteristics.

16. The variant according to claim 15, in which the substitutions are among Ala, Val, Leu and Ile; among Ser and Thr, among the acidic residues Asp and Glu; among Asn and Gln; among the basic residues Lys and Arg; among aromatic residues Phe and Tyr.

17. The variant according to claim 13, in which several amino acids are substituted, deleted or added in any combination.

18. The variant according to claim 13, in which 5-10 amino acids are substituted, deleted or added in any combination.

19. The variant according to claim 13, in which 1-5 amino acids are substituted, deleted or added in any combination.

20. The variant according to claim 13, in which 1-2 amino acids are substituted, deleted or added in any combination.

21. The variant according to claim 13, which is a naturally occurring allelic variant of a *Ixodes ricinus* salivary gland polypeptide present in *Ixodes ricinus* salivary glands.

22. A vector comprising at least one element selected from the group consisting of the polynucleotide according to claim 1, the polypeptide according to claim 7, the variant according to claim 13 and active fragments thereof.

23. A cell transfected or comprising the vector according to claim 22.

24. An inhibitor directed against the polynucleotide according to claim 1 or the polypeptide according to claim 7, or the variant according to claim 13.

25. The inhibitor according to claim 24, which is an antibody or an hypervariable portion thereof.

26. A hybridoma cell line expressing the inhibitor according to claim 25.

27. A pharmaceutical composition comprising an adequate pharmaceutical carrier and an element selected from the group consisting of the polynucleotide according to claim 1, the polypeptide according to claim 7, the variant according to claim 13, the vector according to claim 22, the cell according to claim 23, the inhibitor according to claim 24, or a mixture thereof.

28. The pharmaceutical composition according to claim 27 which presents immunomodulatory properties.

29. An immunological composition or vaccine for inducing an immunological response in a mammalian host to a tick salivary gland polypeptide which comprises at least one element of the group consisting of

f) a tick salivary gland polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a sequence complementary thereto, or an active fragment thereof;

g) a tick salivary gland polypeptide encoded by a polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a biologically active fragment or a portion thereof;

h) a variant of the polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a sequence complementary thereto, or an active fragment thereof;

i) a variant of the polypeptide encoded by a polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a biologically active fragment of said polypeptide; and

j) epitope-bearing fragments, analogs, outer-membrane vesicles or cells (attenuated or otherwise) of components a) or b) or c);

30. The composition of Claim 29, further comprising a carrier.

31. A method for treating or preventing a disease affecting a mammal, said method comprising the step of administrating to said mammal a sufficient amount of the pharmaceutical composition according claim 27 or the immunological composition or vaccine according to claim 29,

in order to prevent or cure either the transmission of pathogenous agents by tick, especially by *Ixodes ricinus*, or the symptoms of diseases induced by tick or pathogenous agents transmitted by tick.

32. A diagnostic kit for detecting a disease or susceptibility to a disease induced or transmitted by tick, especially *Ixodes ricinus*, which comprises:

g) a tick salivary gland polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a sequence complementary thereto, or an active fragment thereof;

h) a nucleotide sequence complementary to that of a);

i) a tick salivary gland polypeptide encoded by a polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a biologically active fragment or a portion thereof;

j) a variant of the polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a sequence complementary thereto, or an active fragment thereof;

e) a variant of the polypeptide encoded by a polynucleotide presenting more than 75% identity with the nucleotide sequence SEQ.ID.NO.26 or a biologically active fragment of said polypeptide;

f) an inhibitor directed against a);

g) an inhibitor directed against c);

h) an inhibitor directed against the variant of d) and/or e);

i) an antibody or hypervariable portion thereof comprised of the inhibitor of f);

j) an antibody or hypervariable portion thereof comprised of the inhibitor of g);

k) an antibody or hypervariable portion thereof comprised of the inhibitor of h); or

l) a phage displaying the antibody of i), j) or k), whereby a), b), c), d), e), f), g), h), i), j) or k) may comprise a substantial component.